

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

Please cancel claims 1-11 and add new claims 12-30.

Listing of Claims:

Claims 1-11 (canceled)

12. (New) A multi-layered complementary wire structure, comprising:

at least one first wire extending in a first direction, the at least one first wire including:

a first main line formed in a first conductive layer; and

a plurality of first branch lines formed in a second conductive layer spaced apart from the first conductive layer, each of the first branch lines having a first length and being separated from an adjacent first branch line by a first distance; and

at least one second wire extending in a second direction orthogonal to the first direction, the at least one second wire including:

a second main line formed in the second conductive layer; and

a plurality of second branch lines formed in the first conductive layer, each of the second branch lines having a second length and being separated from each adjacent second branch line by a second distance,

wherein one of a first ratio of the first length to the first distance or a second ratio of the second length to the second distance is predetermined in order to reduce the resistance of the multi-layered complementary wire structure.

13. (New) The multi-layered complementary wire structure according to claim 12,

wherein the first ratio is greater than approximately 2.

14. (New) The multi-layered complementary wire structure according to claim 12,
wherein the second ratio is greater than approximately 2.

15. (New) The multi-layered complementary wire structure according to claim 12,
wherein the first ratio ranges between approximately 2 and 9.

16. (New) The multi-layered complementary wire structure according to claim 12,
wherein the second ratio ranges between approximately 2 and 9.

17. (New) The multi-layered complementary wire structure according to claim 12, further
comprising a plurality of contact plugs for connecting the first branch lines to the first main line.

18. (New) The multi-layered complementary wire structure according to claim 12, further
comprising a plurality of contact plugs for connecting the second branch lines to the second main
line.

19. (New) A matrix structure of a display, comprising:
a substrate; and
a plurality of pixel units arranged in a matrix on the substrate, each of the pixel units
being disposed near an intersection of a gate line extending in a first direction and a data line
extending in a second direction orthogonal to the first direction,
wherein the gate line includes:

a first main line formed in a first conductive layer; and
a plurality of first branch lines formed in a second conductive layer spaced apart
from the first conductive layer, each of the first branch lines having a first length and
being separated from each adjacent first branch line by a first distance; and
the data line includes:
a second main line formed in the second conductive layer; and
a plurality of second branch lines formed in the first conductive layer, each of the second
branch lines having a second length and being separated from each adjacent second
branch line by a second distance, and
wherein one of a first ratio of the first length to the first distance or a second ratio of the
second length to the second distance is predetermined in order to reduce the resistance of the
matrix structure of the display.

20. (New) The matrix structure of the display according to claim 19, wherein the first
ratio is greater than approximately 2.

21. (New) The matrix structure of the display according to claim 19, wherein the second
ratio is greater than approximately 2.

22. (New) The matrix structure of the display according to claim 19, wherein the first
ratio ranges between approximately 2 and 9.

23. (New) The matrix structure of the display according to claim 19, wherein the second ratio ranges between approximately 2 and 9.

24. (New) The matrix structure of the display according to claim 19, further comprising a plurality of contact plugs for connecting the first branch lines to the first main line.

25. (New) The matrix structure of the display according to claim 19, further comprising a plurality of contact plugs for connecting the second branch lines to the second main line.

26. (New) A method of manufacturing a multi-layered complementary wire structure, comprising:

forming a first conductive layer on a substrate;

patterning the first conductive layer to form a plurality of first main lines extending in a first direction and a plurality of second branch lines extending in a second direction orthogonal to the first direction, each of the plurality of second branch lines on a same line having a second length and being separated from each adjacent second branch line by a second distance;

forming an insulating layer on the patterned first conductive layer;

patterning the insulating layer to form a plurality of first contact holes exposing portions of each of the plurality of first main lines and a plurality of second contact holes exposing portions of each of the second branch lines;

forming a second conductive layer on the insulating layer to fill the first contact holes and the second contact holes; and

patterning the second conductive layer to form a plurality of second main lines extending in the second direction and a plurality of first branch lines extending in the first direction, each of the plurality of first branch lines on a same line having a first length and being separated from each adjacent first branch line by a first distance,

wherein one of a first ratio of the first length to the first distance or a second ratio of the second length to the second distance is predetermined in order to reduce the resistance of the multi-layered complementary wire structure.

27. (New) The method of manufacturing the multi-layered complementary wire structure according to claim 26, further comprising determining that the first ratio is greater than approximately 2.

28. (New) The method of manufacturing the multi-layered complementary wire structure according to claim 26, further comprising determining that the second ratio is greater than approximately 2.

29. (New) The method of manufacturing the multi-layered complementary wire structure according to claim 26, further comprising determining that the first ratio ranges between approximately 2 and 9.

30. (New) The method of manufacturing the multi-layered complementary wire structure according to claim 26, further comprising determining that the second ratio ranges between approximately 2 and 9.